Information Technology Service Division (ITSD)

HB14 – Appropriation for IT Projects
NP 729: Public Safety Radio Consortiums
NP 730: Public Safety Radio-Interoperability
Montana (IM)

February 7, 2007

Jeff Brandt, Deputy CIO
MT Dept of Admin/ITSD
444-3988

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How Interoperability Montana Differs From E9-1-1 and State Government Data Network Expansion

E9-1-1

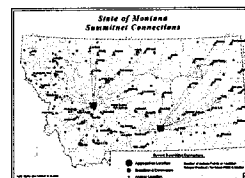Getting the 9-1-1 Emergency Call from the Public to Responders

Interoperability Montana (IM) Project

Wireless (radio) Communications for Responders in the Field

State Government Data Network Expansion

Increasing the capacity of State government's data network

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Outline

- Public Safety Radio Overview
- Project History
- Interoperability Montana (IM) Project
- HB 14 Proposals:
  - Public Safety Radio Consortiums - $5,000,000
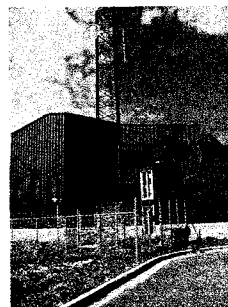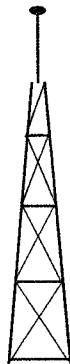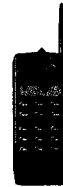 - Public Safety Radio-Interoperability Montana (IM) - $3,500,000

What is Public Safety Radio?

Reliable Communication Sites

Clear Voice Communication
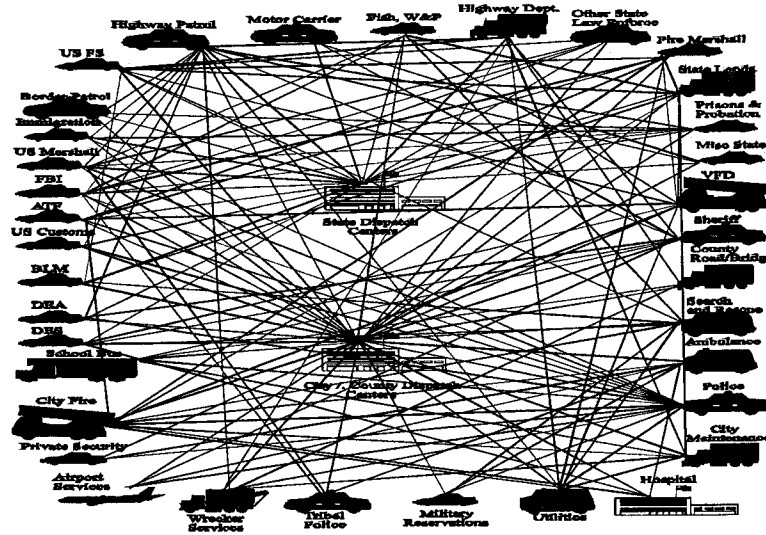
Regional and Statewide Access

Accurate, Fast Mobile Data

Information Security

The Stakeholders

# A Compelling Case for Change...

Current communications hobbled by:

- Funding
- Aging radio systems
- Inadequate maintenance
- Poor radio coverage
- Increasing channel congestion
- Growing interference
- Unnecessary duplication of infrastructure
- Limited functionality
- Potential for shifts in federal funding
- FCC deadline: 2013

...A deteriorating public safety communications environment
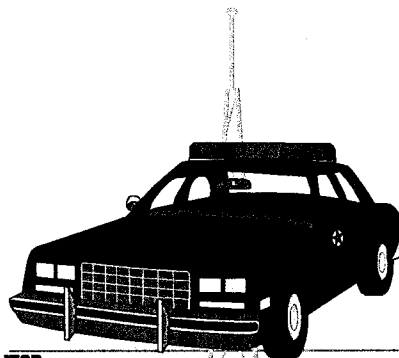
Project History – 1994-2001

- **System Concept Design (1996)**
  - Consultant: The Warner Group
  - Policy Oversight: Public Safety Communications Task Force
  - Cost: $181,500
- **System Design (1998)**
  - Consultant: Spectrum Resources, Inc.
  - Policy Oversight: Montana Public Safety Communications Council
  - Cost: $546,000
  - System Cost Estimate:
    - Infrastructure: $65,500,000
    - Subscriber Units (radios): 48,200,000
- **Draft Legislation (1999 Session); FTE Denied**
  - Top down approach – Attempt #1
- **FTE Denied (2001 Session)**
  - Attempt #2
- "Then came September 11, 2001 and the world changed"

Getting Interoperability Going in Montana

- Aging Radio Systems - continued to age
- 9/11 and Homeland Security Strategic Plan
- Federal Grant (NHTSA) : $300,000
- Local Participation and Leadership
  - "Grass Roots" effort
- Concept Demonstration Projects
  - Lewis and Clark County
  - Northern Tier Interoperability Consortium
- Interoperability Montana (IM) Project formed

Interoperability Montana (IM) Objective

■ Create a comprehensive public safety communication system for maximum interoperability addressing all response levels:

- ❑ Local & Tribal Govt. (Daily Emergencies)
- ❑ State of Montana (Fires, Floods, Earthquakes)
- ❑ Federal Agencies (Border and Drug Enforcement)
- ❑ International (Terrorism)

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IM Goals for Montana

■ Previous Approach:
- ❑ Every agency for itself
- ❑ Duplication of infrastructure
- ❑ Gaps in communication
- ❑ Inefficient use of resources

■ Current Approach with the IM Project:
- ❑ Cooperative approach
- ❑ Efficient use of sites and infrastructure
- ❑ Lower maintenance costs
- ❑ Common communication system
- ❑ Reliable system

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Setting the Stage for Interoperability

- **Policy Level Governance Established:**
  - Creation of Statewide Interoperability Executive Council (SIEC)
  - SIEC Actions:
    - Defined "interoperability"
    - Adopted P25 standard
    - Established technical requirements

- **Adoption of Montana's Homeland Security Strategic Plan**
  - Named SIEC as Executive Policy Agent
  - Interoperable Communications listed as a priority (#2 for Nation and Montana)

Concept Demonstration Projects (CDPs)

- CDP #1: Lewis and Clark County
  - Consortium Name: Southwest Montana Interoperability Project (SWIP); Later merged to become Tri County Consortium
  - Funding:
    - FEMA-Interoperable Communications Equipment (ICE) Grant
    - Local Funding
    - Homeland Security Funding
  - Fully Operational – Spring 2006
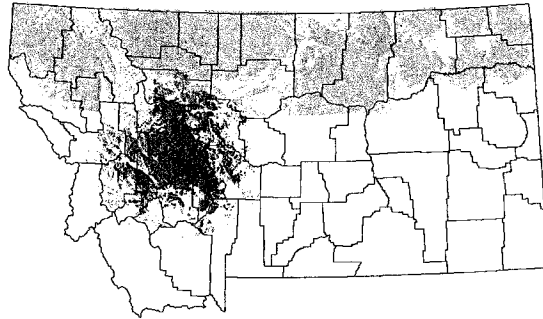- CDP #2: Northern Tier Interoperability Consortium
  - Funding:
    - 2005 Legislature
    - Homeland Security
  - Fully Operational: August 2007

Lewis and Clark County and Northern Tier Radio Coverage

Development of Consortiums

Montana Interoperability Consortia

Consortia
- BIG SKY 11
- CMICC - Central Montana
- ETIP - Eastern Tier
- I 15 - 90
- Mobile Data Terminal (MDT)
- NTIP - Northern Tier
- SCMIC - South Central Montana
- SWP/TRI-COUNTY
- WICC - Western

0   45   90   180 Miles
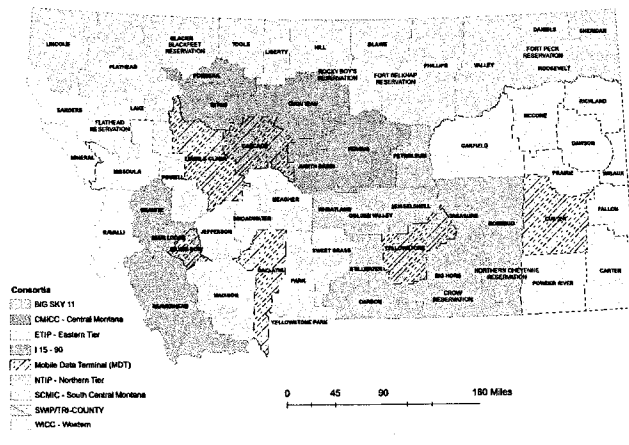
Interoperability Montana (IM)

- Interoperability Montana Project Directors (IMPD) board formed in May, 2005 – Management tier governance
  - Represents each local consortium (9)
  - Establishes priorities for funding and oversight
  - As of November 2006, three state agencies given voting status (MDT, MHP, DNRC)
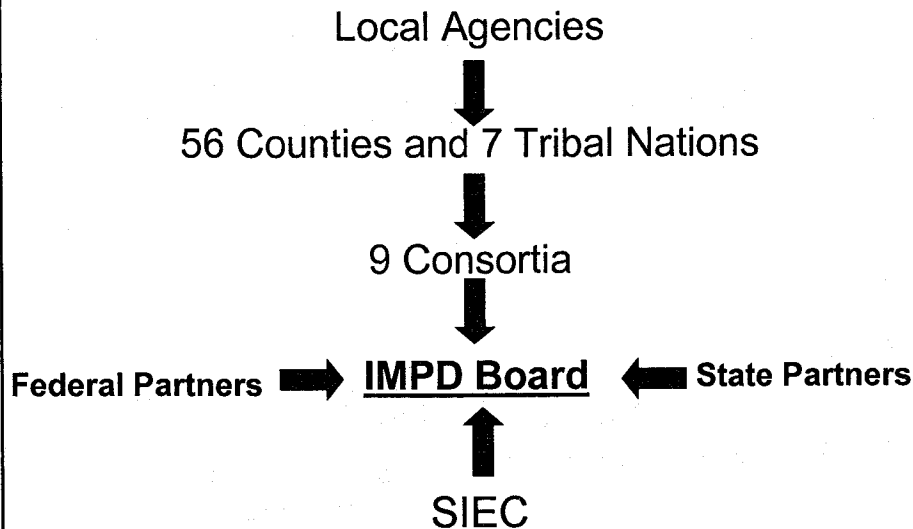 - Actions consistent with the SIEC definition of interoperability

Diagram of Interoperable Communications Strategic Plan

Interoperability Montana - A Different Approach

Local Agencies

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56 Counties and 7 Tribal Nations

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9 Consortia

↓

Federal Partners ➡ **IMPD Board** ⬅ **State Partners**

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SIEC

SAFECOMM Interoperability Model

State of Montana Goal
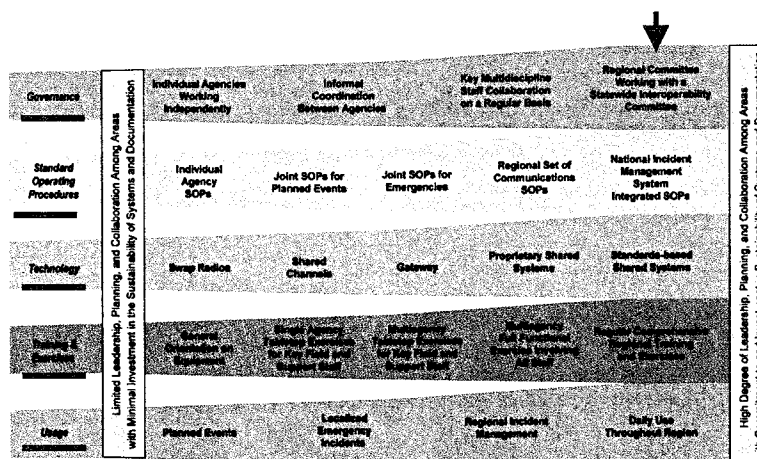
Interoperability Montana Funding – Federal, State & Local

Source/Year	FY04	FY05	FY06	FY07/08 (Projected)	Total
FEMA ICE	$4,476,000				$4,476,000
Homeland Security	$365,000	$8,370,000	$5,125,000		$20,860,000
Local Match	$2,273,000				$3,273,000
State of Montana	$85,000		$3,500,000		$12,085,000
Board of Crime Control Grant	$924,000				$924,000
Federal (USAF)			$1,900,000		$1,900,000
National Guard					$700,000
State Agencies					$3,500,000
FEMA Fire Grants (local)			$1,500,000		$3,000,000
Totals:	$8,123,000	$ 8,370,000	$12,025,000		

Public Safety Radio - Consortium Funding - $5,000,000

- Provides $5,000,000 state investment into the Interoperability Partnership
- Shows State financial participation and backing for the project needed when seeking Federal funding
- Primary use for building out radio infrastructure
  - Towers, microwave, repeaters
  - Some minor construction and operational costs not covered by grant funding

Proposed $5,000,000 Appropriation

Infrastructure Improvement	$1,300,000
Radio Trunking	$1,700,000
Microwave Equipment	$750,000
Project Management	$750,000
Subscriber Units (radios)	$250,000
Consortium Needs	$250,000
Total:	$5,000,000

Public Safety Radio - Consortium Funding (Cont.)

- Funding will impact every consortium (region) in the state.
- Priorities will be set and modified by the Interoperability Montana Project Directors (IMPD)
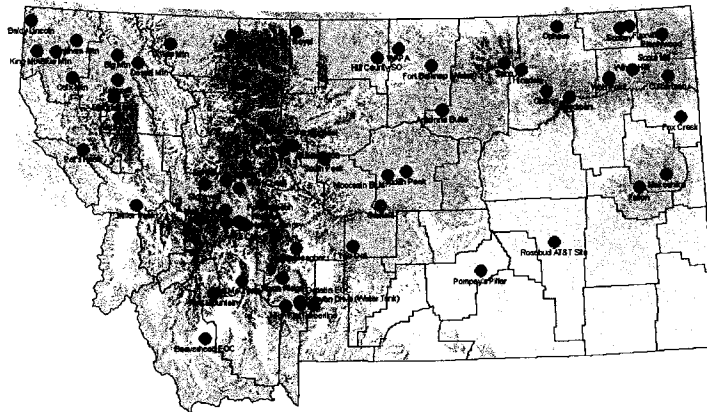

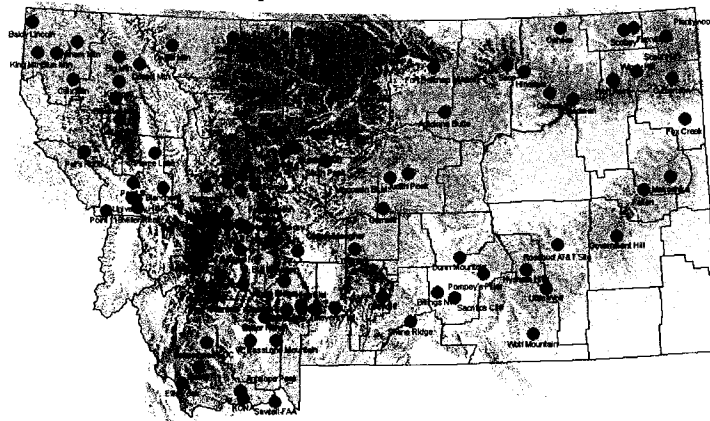
Stonewall Mountain Site Construction

+ NTIC/Phase I Coverage

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+ Proposed Phase II

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Proposed Microwave Paths
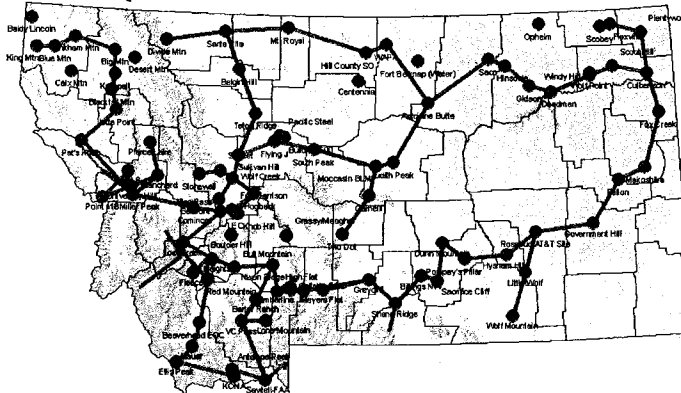
Public Safety Radio - Interoperability Montana (IM) Funding - $3,500,000

- Provides $3,500,000 for master control site in central/eastern part of state.
  - Purchase of redundant controller for trunking control
    - **Backup to primary controller**
    - **Increased system capacity**
    - **No single point of failure**
    - **Enable system to be "regionalized"**
  - Upgrades to digital microwave system – loop design – reduces dependency on any one route
  - Facilitates efficient design and implementation

Proposed $3,500,000 Appropriation

Master Controller	$2,600,000
Construction	$300,000
Microwave Upgrades	$500,000
Project Management	$100,000
Total:	**$3,500,000**

NORTHROP GRUMMAN

Original

**State Agencies
Radio Interoperability
Needs Assessment**

Submitted to:
Public Safety and Services Bureau &

Submitted By:
Northrop Grumman

PSSB   DOA

DOT
DNRC
DOJ
DMA
DPHHS
DEWP
DOL

December 22, 2006

Fall 2006 – State Agency Needs Assessment

Anticipated Long Term Funding Needs

- IM will continue to utilize Homeland Security Funding (Estimated $3 million per year over next three years)
- Seek New Grant Funding – Spectrum Grant
- State of Montana:
  - One Time: $5 to $8 million construction requests for 2009, 2011 and 2013 Legislatures.
  - $1,000,000 ongoing request beginning in 2009 to support governance and maintenance issues.

IM Work To Be Done

- Completion of IM Project Build-out
- Develop Long Term Governance Plan
- Address Long Term Maintenance
- Developing Standard Operating Procedures
- Secure Additional Federal Funding

Questions?